



PATENT

DOCKET NO.: 16139/09014

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of	)	
Michael L. Myrick, et al.	)	Examiner: W. Markham
	)	
Serial No.: 09/964,194	)	Art Unit: 1762
	)	
Filed: September 26, 2001	)	Account No.: 50-1196
	)	
Title: Filter Design Algorithm for	)	
Multivariate Optical Computing	)	

**AFFIDAVIT OF DR. MICHAEL L. MYRICK**

I, Dr. Michael L. Myrick, state as follows:

1. I am a professor at the University of South Carolina.
2. Upon information and belief, I, Olusola O. Soyemi and Paul J. Gemperline are the sole inventors of the subject matter claimed in the above-referenced United States patent application.
3. D. Eastwood, L. Zhang, and J. Karunamuni were post-doctoral assistants working under my direction during the development of the subject matter described in Novel Filter Design Algorithm for Multivariate Optical Computing, Proceeding of SPIE, Vol. 4205, pp. 288-299 (2001) (Soyemi 1) and Design and Testing of a Multivariate Optical Element: The First Demonstration of Multivariate Optical Computing for Predictive Spectroscopy, Analytical Chemistry, Vol. 73, No. 6, pp. 1069 - 1079 (2001) (Soyemi 2). H. Li was a graduate student working under my direction during the development of the subject matter described in Soyemi 1

and Soyemi 2. R. A. Synowicki provided information as described herein that was presented in Soyemi 2.


4. Zhang, Eastwood, Li and Karunamuni performed experimental and/or testing work at my direction. Eastwood and Zhang acquired the sample spectra that were applied to the design algorithm and reflected in Figure 3 at page 1072 of Soyemi 2. Li recorded the data represented at Fig. 4C at page 1073 of Soyemi 2. Karunamuni was responsible for construction and maintenance of a deposition chamber in which optical filters were formed as described in Soyemi 2.

5. Upon information and belief, Mr. Synowicki was employed by an entity that was independent of the University of South Carolina. I sent to Mr. Synowicki samples of  $\text{Nb}_2\text{O}_5$  and  $\text{SiO}_2$ . Upon information and belief, Mr. Synowicki performed a variable-angle spectroscopic ellipsometry analysis for the samples and provided resulting data to me. This data is reflected in Figure 2 at page 1071 of Soyemi 2.

6. With regard to Soyemi 1, Eastwood and Zhang acquired sample spectral data reflected in Figure 4 at page 295. The data acquired by Li and reflected in Figure 4C of Soyemi 2 was used in conjunction with the data reflected in Figure 4 of Soyemi 1 to develop the information in Figure 5 of Soyemi 1.

7. Upon information and belief, none of D. Eastwood, L. Zhang, H. Li, J. Karunamuni and R. A. Synowicki has refused to disclaim inventorship of the subject matter claimed in the above-referenced U.S. patent application or believes himself or herself to be an inventor thereof.

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true.

  
Dr. Michael L. Myrick

3/22/06  
Date

Witness my hand and official seal this  
the 22 day of March, 2006.

Virginia H. Rogers  
Notary Public for

My Commission Expires: 2-25-2009